Today the flame is stabilised by having the cap protruding by a few millimetres (normally two to four millimetres) from the notched crown.

Gas cooker burners of this type are described in EP0797048 and EP 0903538 patents wherein the lower border of the cap is situated immediately above the section from which the flame flows.

The first section of each flame is therefore dominated by the protruding border of the cap, which prevents the flame from rising and imposes a centrifugal horizontal trajectory on the flame, which gradually tends to assume an ascending direction after passing beyond the border of the cap.

In other words, it can be said that in the current models of burners the flames coming out of the notched crown lick the bottom of the pot with centrifugal direction and very small impact angle, thus considerably impairing the thermal efficiency of the burner, since the maximum efficiency value is measured when the flame reaches the bottom of the pot with perpendicular direction.

The purpose of the present invention is to solve this drawback, by providing a solution that can favour the immediate rising of the flames from the notched crown and guarantee the stability of the flames.

The model of burner of the invention uses a cap having the same external diameter of the crown, which is provided with an external annular groove along the edge of the upper border.

In other words, it can be said that the border of the cap is flush with the sections of each nozzle of the burner, which, for the first time, communicate by means of the annular groove, where the speed of the air-gas mixture is lower than the speed measured in the deeper notches of the crown, resulting in the stabilisation of the flame coming out of the notches.

The above declared purpose of the invention has thus been achieved since the flames can deviate upwards as soon as they come out from the notched crown it being provided that the border of the cap (7) does not bar anymore their rise, the external diameter of the cap (7) being so small to match the external diameter of the underlying crown, the aforementioned annular groove being provided along the upper corner of said crown.

Finally, attention is drawn on the fact that the border (7a) is situated immediately before the groove (9) and transmits the flame to the deeper notches (6b) of the crown **(6a). In addition to the synthetic information already provided on page 2, lines 26-29 of the description it is hereby pointed out the main characteristic of the burner according to the invention as shown in fig. 3 identifying the following reference parameters:**

d.e.cap.= external diameter of the cap

d.e.cor= external diameter of the crown

That being stated we reiterate that the external diameter (d.e.cap) of the cap (7) is identical to the external diameter (d.e.cor) of the underlying crown (6a) wherein the section (S) from which the flame flows is flush with the lower border (7a) of the overlying cap (7).

Measurements have shown that the speed of the air-gas mixture in the groove (9) is lower than the speed in the deeper notches (6b) of the crown (6a), resulting in the stabilisation of the flame (F) coming out of the notches (6b).

As shown in Fig. 3, after coming out from the crown (6a), the flame (F) has a considerably ascending direction, so that the impact angle with the bottom of the pot is by far closer to the optimal value. As a matter of fact, in the burner of the invention the thermal efficiency is increased by 1.5% -2% compared to burners of known type.